

probably from an inlay decoration.

The second batch of tablets, from a shallower excavation, dates from the Old Elamite period of about 1,800 B.C. and are written in Sumerian, a sign of the strong influence of Mesopotamia. The researchers also found seals, friezes and figurines in the same deposits portraying animals, women clasping their hands or holding their breasts, and enthroned kings with attendants.

The third tablet find, from which Reiner discovered the city's identity, was in a room, detected during a cesium magnetometer survey, which had been destroyed in a fire. Its use is uncertain, since few other artifacts were found there.

The researchers' agreement with Iran required that the government get its choice of any 10 unique objects—they took several of the tablets—after which Sumner divided the rest in half and drew lots with the Iranian Government for the right to choose its half.

At present, the Pennsylvania team is carefully unpacking the artifacts returned from Iran, and in the future it will continue to investigate the parts of the site where the various tablets were found.

There is certainly no shortage of places to look. Remains of a wall completely enclose the city with its monumental architecture, and signs indicate several outlying settlements. "It would take several lifetimes," Dyson says, "to excavate all of Tal-I Malyun." □

Nature vs. nurture in African infants

If psychological development during the first year of life is important, then growing up in Africa has definite advantages. A number of studies have shown that sub-Saharan African infants are precocious. On motor- and mental-skills tests during the first year of life these infants outperform their age peers (both black and white) in the United States and Europe. Some researchers have attributed this precocity to genetic factors, others to social factors (SN: 11/4/72, p. 298).

But "these studies leave much to be desired methodologically," say researchers P. Herbert Leiderman, Beatrice Babu, James Kagia, Helena C. Kraemer and Gloria F. Leiderman of Stanford University School of Medicine and the University of Nairobi. So they designed a longitudinal (as opposed to cross-sectional) study to investigate whether or not there is developmental precocity and to assess the relationship of selected social and demographic variables to psychological development during the first year. The study was conducted in a Kikuyu agri-

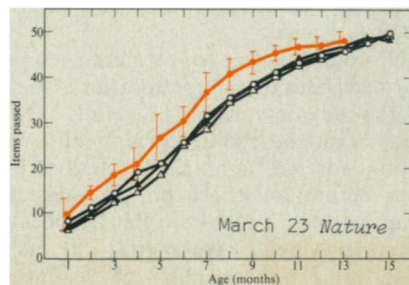
cultural community outside of Nairobi. Sixty-five infants (34 male and 31 female) were tested for mental and motor skills at 2-month intervals for up to 16 months. Information on such matters as family structure, educational achievement, economic status and density of household was collected for each child. The results of the study are reported in the March 23 NATURE.

Test results of the Kikuyu infants were compared with U.S. standards. The African infants surpassed U.S. performance on 38 items of the mental test and 20 items of the motor test. They lagged behind American children on 7 items of the mental test and 2 items of the motor test. The Kikuyu infants continued to score higher throughout the first year of life.

The Kikuyu infants from families with greater economic resources and with more modern amenities such as calendars, clocks and books performed better on the mental test. Infants born to fathers of higher income, more training and more education, scored higher on motor and mental tests than did those of fathers with less income, training and education. Infants from households with two or more persons past the age of 40 did better on the motor tests. This, say the researchers, suggests that additional caretaking of the infant by an older woman or grandmother contributed to motor development.

The researchers admit that a definite answer cannot be given yet for why the African infants have precocious mental and motor development during early life, or for why test performance is apparently influenced by economic and social factors. But assuming the Kikuyu infants to be non-precocious at birth, they say their findings lend support to theories emphasizing environmental influences during the first year of life.

The researchers agree with Arthur Jensen that genetic factors account for a large proportion of the variability of mental and motor test performance during the first year. They conclude, however, that the remaining variance (about 25 percent) is not random, but associated with identifiable social and demographic factors. □



Comparison of motor test performance (Bayley) for Kikuyu (●), UK white (○), US black (▲), and US white (△) infants during the first year.

Diving for knowledge of the ocean's life

Though ocean diving is an ancient art—Aristotle described the first diving apparatus and Alexander the Great is said to have made descents—the inner sea remains the great unexplored frontier of earth. Three recent developments reflect the increasing sophistication of diving techniques and the growing importance of the diving art to understanding the oceanic ecosystem.

William Hamner, a zoologist at the University of California at Davis, has adapted scuba-diving techniques to open ocean research for the first time. Scuba has long been used close to shore, where sight of the ocean bottom and plants gives fixed points of reference, but free divers attempting to explore the open sea often experience the same panicky sense of isolation observed in astronauts during spacewalks.

To meet this problem, Hamner erected a framework of floating pipes to give the divers a sense of orientation, and tethered them to a "safety man" in the middle, who kept the lines untangled and watched for sharks. The team has been conducting studies using the technique in the clear waters of the Florida current, off Bimini in the Bahamas, where the depth is about two miles and 150-foot visibilities are common.

On their first expedition, sponsored by the National Science Foundation, the Hamner team has concentrated on studying zooplankton—the floating or weakly swimming animals that make up a vital, and not fully understood, link in the sea's food chain.

Already the Hamner team has observed phenomena not discovered before. Previously, for example, only a few badly damaged specimens of a peculiar pteropod called the Gleba have been found, and no one could figure out quite how it functioned. Now, members of the team have observed several Gleba in their natural environment and watched as the animal fashioned a four-foot-wide net of mucus to ensnare smaller plankton. They also saw how another animal, the Larvacean, secretes a "filter house" that it uses to trap microplankton.

Hamner sees deep-sea scuba as an inexpensive alternative to elaborate bathyscaphes and research submarines and plans to take his team next to conduct research in the Gulf of California.

Meanwhile, after years of having the HYDROLAB underwater laboratory-residence used primarily for testing man's survival in a strange environment, scientists have begun to use the facility for extensive research at 50-foot